Amendments to the Claims

1. *(Currently Amended)* Apparatus ~~(20)~~ for determining a frequency offset error, comprising an input ~~(24.1)~~ for receiving a digitally coded frequency demodulated signal ~~(demod_lp2),~~ said frequency demodulated signal ~~(demod_lp2)~~ being processed by

- digital means ~~(25; 35; 41, 42.1)~~ for performing a correlation in order to determine whether a correlation criterion is fulfilled, and
- digital means ~~(26; 36; 41, 42.2)~~ for performing a minimum-maximum evaluation in order to determine whether a minimum-maximum criterion are fulfilled,

said apparatus ~~(20)~~ further comprising digital processing means ~~(27, 28; 37; 38; 41, 42.3)~~ to calculate the current offset of the frequency demodulated signal ~~(demod_lp2)~~ and to cancel the current offset if both criteria are fulfilled.

2. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(35)~~ for performing a correlation comprise a correlator ~~(35.1)~~, a peak detector ~~(35.2)~~ and a comparator ~~(35.3).~~

3. *(Currently Amended)* The apparatus ~~(20)~~ of claim ~~1 or 2~~1, wherein the digital means ~~(36)~~ for performing a minimum-maximum evaluation comprise two subtractors ~~(36.1, 36.2)~~ and two comparators ~~(36.3, 36.4).~~

4. *(Currently Amended)* The apparatus ~~(20)~~ of claim ~~1, 2 or 3~~1, wherein the digital processing means ~~(37; 38)~~ comprise an average detector ~~(37.1),~~ an offset register ~~(37.2)~~, and an offset compensator ~~(38)~~ to subtract the current offset stored in the offset register ~~(37.2)~~ from the frequency demodulated signal ~~(demod_lp2).~~

5. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(25; 35)~~ for performing a correlation and the digital means ~~(26; 36)~~ for performing a minimum- maximum evaluation both provide signals ~~(ok_crit1; ok_crit2A, ok_crit2B)~~ to the digital processing means ~~(27, 28; 37; 38)~~ in order to cause the digital processing means ~~(27, 28; 37; 38)~~ to cancel the current offset.

6. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, comprising two comparators ~~(17)~~ serving as limiters followed by building blocks ~~(18, 19, 21, 22, 23)~~ arranged to extract said frequency demodulated signal ~~(demod_lp2)~~ from a frequency shift keyed modulated signal.

7. *(Currently Amended)* The apparatus ~~(20)~~ of claim ~~1 or 2,~~1 wherein the digital means ~~(25; 35)~~ for performing a correlation correlate the frequency demodulated signal ~~(demod_lp2)~~ with a time-limited sine wave signal, and determine whether the result of this correlation exceeds a certain threshold ~~(threshold_1).~~

8. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(25; 35)~~ for performing a correlation provide an output signal ~~(ok_crit1)~~ indicating that the a criterion for a known sequence is fulfilled.

9. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(26; 36)~~ for performing a minimum-maximum evaluation determine whether expected peaks of positive and negative half-waves of the frequency demodulated signal ~~(demod_lp2)~~ have predefined distances ~~(threshold_2).~~

10. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(26; 36)~~ for performing a minimum-maximum evaluation calculate two subtractions in order to compare four received symbols with corresponding amplitudes.

11. *(Currently Amended)* The apparatus ~~(20)~~ according to ~~one of the preceding claims~~claim 1, wherein the frequency demodulated signal ~~(demod_lp2)~~ is a digital coded signal.

12. *(Currently Amended)* The apparatus ~~(20)~~ of claim 4, wherein the offset compensator ~~(38)~~ is employed in order to continuously subtract a value stored in the offset register ~~(37.2)~~ from the frequency demodulated signal ~~(demod_lp2).~~

13. *(Currently Amended)* The apparatus ~~(20)~~ of claim 4, wherein the average detector ~~(37.1)~~ is a sliding average detector that continuously generates a mean value of the frequency demodulated signal ~~(demod_lp2)~~.

14. *(Currently Amended)* Receiver ~~(10)~~ comprising an apparatus according to ~~one or more of the preceding claims~~claim 1.

15. *(Currently Amended)* The receiver ~~(10)~~ of claim 14, comprising an analog front-end ~~(10, 14, 15)~~ and a digital back-end ~~(16),~~ said apparatus ~~(20)~~ for determining a frequency offset error being part of said digital back-end ~~(16).~~

16. *(Currently Amended)* The receiver ~~(10)~~ of claim ~~14 or 15~~14 being designed to receive and process FSK or GFSK modulated antenna signals.